Overconfidence and Income Inequality
Pre-Analysis Plan

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1 Theoretical Hypotheses

Much evidence shows that people tend to be overconfident about their ability in many situations. This study investigates how the political preferences of overconfident people, specifically preferences regarding equality, change when they see a gap between their economic status and their self-evaluations of their ability.

Overconfident people do not actually earn what they think they can, implying that they may be aware of a gap between their economic status and their own evaluations of their ability at some point during their lives. As they hold a strongly biased belief about their own ability, they would not attribute this gap to their low ability but rather that their economic status does not appropriately reflect their talent and effort, which implies that society is non-meritocratic and unfair. As such, overconfident people would attribute the income-ability gap to the unfairness of the economy, which should in turn increase overconfident people's support for reducing income inequality. They may also change their preferred measures to correct social unfairness.

This argument can be summarized as follows:

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Hypothesis 1. *Suppose that a person believes that her ability is high, but her income is low. Realizing this income-ability gap leads her to believe that ordinary people do not get income commensurate with their ability. That is, realizing the income-ability gap increases the perceived degree of unfairness of the economy.*

Hypothesis 2. *Suppose that a person believes that her ability is high, but her income is low. Realizing this income-ability gap increases her support for reducing income inequality. In addition, when realizing the income-ability gap, she demands public intervention to reduce inequality as the private sector yields unfair outcomes.*

So far, we did not consider each individual's political ideology. However, in practice, it matters. From this consideration, we obtain the following hypothesis:

Hypothesis 3. *The salience of hypotheses 1 and 2 depends on political ideology.*

Lastly, another dimension of political attitudes affects support for government intervention. Those with political distrust might oppose any type of government involvement and seek other ways to address unfairness. Thus, we obtain the following hypothesis:

Hypothesis 4. *The salience of the effect on support for government intervention depends on the trust in government.*

2 Experimental Design

2.1 Survey Structure

The survey has the following structure. At the beginning of the survey, respondents are asked to answer (i) questions on demographics and political attitudes and (ii) questions on income and ability. Then, we assign them randomly to (iii) the treatment question. Afterward, they are asked to answer (iv) questions on their views on inequality and redistribution. Respondents are forced to answer all questions. The experiment will be conducted using Qualtrics survey software.

2.2 Constructing Income-Ability Gap

To construct each respondent's self-perception of the income-ability gap, all the respondents are asked to answer questions on the relative location of their incomes and their ability at the beginning of the survey.

First, we present a table of income distribution in the US. Based on this table, respondents were asked to answer the relative location of their household incomes on a 7-point scale from "very high'' (top 15 %) to "very low'' (bottom 15%). Second, we ask respondents to evaluate the relative location of their earning ability by a 7 point-scale from "very high'' (top 15%) to "very low'' (bottom 15%).

From these two questions, we construct each respondent's income-ability gap. If the self-evaluation on ability is higher than the income location, we code a respondent as being *overconfident*.

2.3 Treatment

We assign respondents randomly to the treatment question. The aim of this treatment is to emphasize the income-ability gap. To this end, we customize this question for each respondent depending on her self-perception of the income-ability gap.

Suppose that a respondent chose "low'' as the relative location of her household income and "very high'' as the self-evaluation of her ability. This implies that her income is much lower than the self-evaluation of her ability. However, she might not realize this income-ability gap.We design our treatment question to alert the respondent to the income-ability gap based on their answers to the previous questions.

2.4 Main Outcomes

We explore the effect of the treatment on views on inequality and preferences for reducing inequality. For this purpose, we use the answers to the following questions as our main outcomes.

Unfairness of the economy: In a meritocratic society, economic status should be based on ability (i.e., talent and effort). If not, then the society is non-meritocratic and unfair. Based on this view, we asked respondents to answer whether the incomes of ordinary people in the US are higher than, equal to, or lower than their ability. We use the answer to this question as the perception of the unfairness of the economy.

Preferences for reducing income inequality: We ask the following two questions. The first question is about whether to reduce income inequality in general. In particular, respondents were asked to answer whether US society should reduce income inequality on a 4-point scale

from "strongly disagree'' to "strongly agree.'' In addition, because there are various ways to reduce income inequality, it is not necessarily true that support for reducing inequality leads to support for government intervention. We therefore designed the second question to ask about support for government intervention. In particular, respondents were asked to answer whether "the task for reducing income inequality should be delegated to the US government'' or "the US government cannot be entrusted with the task for reducing income inequality.''

3 Analysis Plan

Throughout the analysis, we focus on the overconfident samples and examine the treatment effect of these people's view on economy and income inequality.

The first analysis is using the following regression specification for each of our main outcomes:

$$\begin{aligned} y_i = & \sum_{position=[left,right,center]} \tau_{position} T_i \times I(position_i = position) \\ & + \sum_{position=[left,right]} \alpha_{position} I(position_i = position) + \beta X_i + \epsilon_i, \end{aligned} \tag{1}$$

where y_i is the outcome variable and T_i represents the treatment dummy. The coefficients of interest are $(\tau_{left}, \tau_{right}, \tau_{center})$, describing the treatment effect for people with the corresponding political position. X_i includes the constant term, the income level, age, sex, race, whether a person lives in an urban area, marital status, and whether the person completed 4-year college or more as controls. Note that the effect of being centrist ("α_{center}") is absorbed in the constant term in X_i. ϵ_i is the error term. We use the heteroskedasticity-robust standard errors.

We also leverage people's level of trust in the government. For this purpose, we use the following regression specification as the second analysis:

$$\begin{aligned} y_i = & \sum_{position=[left,right,center]} \tau_{position} T_i \times I(position_i = position) \\ & + \sum_{position=[left,right,center]} \tau_{position,yes} T_i \times I(position_i = position) \times I(trust_i = yes) \\ & + \sum_{position=[left,right]} \alpha_{position} I(position_i = position) \\ & + \sum_{position=[left,right,center]} \alpha_{position,yes} I(position_i = position) \times I(trust_i = yes) \\ & + \beta X_i + \epsilon_i, \end{aligned} \tag{2}$$

where $(\tau_{left}, \tau_{right}, \tau_{center}, \tau_{left} + \tau_{left,yes}, \tau_{right} + \tau_{right,yes}, \tau_{center} + \tau_{center,yes})$ is the coefficient of interest, describing the treatment effect for people with the political position given by *position* and the government trust level given by *trust*. The remaining details are the same as the specification in equation (1).